

Abstract:

An improved method of finishing a silicon part utilizes a rotatable grinding wheel having diamond particles and a bonding agent, and a plurality of grit materials. The grinding wheel is dressed to form a wheel with a grinding surface having a plurality of diamond particles, and thereafter a bonding agent is removed from the grinding wheel surface without significant removal of the plurality of diamond particles. An enhanced lubricity material may be applied to the grinding wheel, and the surface of the silicon part then ground, preferably while cooling the silicon part. The surface of the silicon part may then be finished with a plurality of grit materials. A single digit RMS surface finish on a silicon part may be obtained.